

IN THE CLAIMS

Please cancel claims 8 and 20 without prejudice or disclaimer, and amend claims 1, 3, 7, 9, 10, 12, 13, 24, and 25, as follows:

1. (Currently Amended) A storage system , wherein the system
receives a command to which an ID number for identifying one of a plurality of OSs is attached,
derives said ID number, and
returns a response that indicates whether to process or reject the access to a logical volume with said ID number attached thereto, depending on whether the one of the plurality of OSs identified by said command is authorized to access the logical volume [[.]] ;
wherein the storage system ~~check's~~ checks whether the one of the plurality of OSs by said command is authorized or not based on a table which includes authentication information of each of the plurality of the OSs, and
wherein the storage system receives the authentication information of the plurality of OSs from a computer connected to the storage system by using a control frame and sets the authentication information into the table in advance, and
wherein the command sent to the storage system includes said ID number coded in a data frame from which said storage system derives said ID number.
2. (Previously Presented) A storage system according to claim 1, wherein the authentication information includes information that some of the plurality of OSs have authentication access to the logical volume.
3. (Currently Amended) A storage system according to claim 1, wherein the authentication information includes priority information which indicate that a command issued from one of the plurality of OSs should be treated prior to the other command issued from the other one of the plurality of [[OS's]] OSs.

4. (Previously Presented) A storage system as recited in claim 1, wherein whether to process or reject the access requested by said command received is determined, based on present authority and said response is returned.
5. (Canceled)
6. (Previously Presented) A storage system according to claim 1, wherein the system returns the response which is determined depending on a combination of a plurality of types of ID numbers attached to said command received.
7. (Currently Amended) A virtual private volume control method,
 - wherein servers on which a plurality of OSs run communicate with a disk apparatus, said disk apparatus including tables in which specification of whether to process or reject [[the]] access requested by a command, dependent on the OS's ID number, in such manner that, when one of said plurality of OSs on a server issues an access command, said server assigns an ID number for identifying the OS and sends the command with the assigned ID number attached thereto; said disk apparatus receives the sent command, derives said ID number, and returns a response that indicates whether to process or reject the access to a logical volume with said ID number attached thereto, depending whether the one of the plurality of OSs identified by said derived ID is authorized to access the logical volume and said server receives said response [[,]] ;
 - wherein [[the]] a storage system checks whether [[the]] access for one of the plurality of OSs requested by said command is authorized or not based on a table which includes authentication information for [[of]] each of the plurality of the OSs [[,]] ;
 - wherein the storage system receives the authentication information of the plurality of OSs from a computer connected to the storage system by using a control frame and sets the authentication information into the table in advance [[,]] ;
 - wherein the authentication information includes information that some of the plurality of OSs have authentication to access to the logical volume, and ~~wherein the authentication information includes~~ priority information which indicate that a

command issued from one of the plurality of OSs should be treated prior to the other command issued from the other one of the plurality of OS's OSs; and

wherein said server codes said OS's ID number into a data frame and sends the data frame as the command and said storage system receives the data frame and derives said ID number therefrom.

8. (Canceled)
9. (Currently Amended) The virtual private volume control method as recited in claim 7, wherein the priority information indicating [[of]] processing order for access may change, according to the OS's ID number attached to said command received.
10. (Currently Amended) The virtual private volume control method as recited in claim 7, wherein whether to process or reject the access requested by said command received is determined [[,]] based on preset conditions and said response is returned.
11. (Canceled)
12. (Currently Amended) An OS Management Software, wherein when at least one of a plurality of OSs issues an access command,

said software assigns an ID number for identifying the OS, and for using whether the OS is authorized to access a logical volume which is included in a storage system, stores the assigned ID number into an internal memory of a server, receives a response to which said ID number is attached, and returns the response to said OS, wherein the access command includes said ID number coded in a data frame;

wherein the storage system checks whether the one of the plurality of OSs by said command is authorized or not based on a table which includes authentication information of each of the plurality of the OSs, said checking by the storage system includes receiving said command and deriving said ID number of the one of the plurality of OSs therefrom;

wherein the storage system receives the authentication information of the plurality of OSs from a computer connected to the storage system by using a control frame and sets the authentication information into the table in advance [[,]] ;

wherein the authentication information includes information that some of the plurality of OSs have authentication to access to the logical volume [[,]] ; and

wherein the authentication information includes priority information which indicate that a command issued from one of the plurality of OSs should be treated prior to the other command issued from the other one of the plurality of OS's OSs.

13. (Currently Amended) A storage system, wherein the system

receives a command to which an ID number for identifying one of a plurality of OSs and an ID number for identifying one of a plurality of applications are attached, at least said OS ID number being coded in a data frame with said command,

derives said ~~both ID number~~ numbers, and

returns a response that indicates whether to process or reject the access to a logical volume with said ID numbers attached thereto, depending on whether the one of the plurality of OSs and the one of the plurality of applications identified by said command is authorized to access the logical volume [[,]] ;

wherein a storage system checks whether the one of the plurality of OSs by said command is authorized or not based on a table which includes authentication information of each of the plurality of the OSs [[,]] ;

wherein the storage system receives the authentication information of the plurality of OSs from a computer connected to the storage system by using a control frame and sets the authentication information into the table in advance [[,]] ;

wherein the authentication information includes information that some of the plurality of OSs have authentication to access to the logical volume [[,]] ; and

wherein the authentication information includes priority information which indicate that a command issued from one of the plurality of OSs should be treated prior to the other command issued from the other one of the plurality of OS's.

14. (Original) The storage system as recited in claim 13, wherein said logical volume consists of a plurality of magnetic disk units.

15. (Original) The storage system as recited in claim 13, wherein the priority of processing for access may change, according to the OS's and application's ID numbers attached to said command received.
16. (Original) The storage system as recited in claim 13, wherein whether to process or reject the access requested by said command is determined, based on preset conditions and said response is returned.
17. (Canceled)
18. (Original) The storage system as recited in claim 13, wherein the system returns the response which is determined, depending on combination of a plurality of types of ID numbers attached to said command received.
19. (Currently Amended) A virtual private volume control method, wherein servers on which a plurality of applications and a plurality of OSs run communicate with disk apparatus in such a manner that, when one of said applications under one of said OSs on a server issues an access command, said server assigns an ID number for identifying the application as well as an ID number for identifying the OS, sends the command with both assigned ID numbers attached thereto; said disk apparatus receives the sent command, derives said both ID numbers, and returns a response that indicates whether to process or reject the access to a logical volume with said ID numbers attached thereto, depending on whether the one of the plurality of applications under the one of the plurality of OSs identified by said derived IDs is authorized to access the logical volume; and said server receives said response,
wherein a storage system checks whether the one of the plurality of OSs by said command is authorized or not based on a table which includes authentication information of each of the plurality of the OSs,
wherein the storage system receives the authentication information of the plurality of OSs from a computer connected to the storage system by using a control frame and sets the authentication information into the table in advance,

wherein the authentication information includes information that some of the plurality of OSs have authentication to access to the logical volume, and

wherein the authentication information includes priority information which indicate that a command issued from one of the plurality of OSs should be treated prior to the other command issued from the other one of the plurality of OS's, and

wherein said server codes said OS's ID number into a data frame and sends the data frame as the command and said disk apparatus receives the data frame and derives said ID number therefrom.

20. (Canceled)

21. (Original) The virtual private control method as recited in claim 19, wherein the priority of processing for access may change, according to the application's and OS's ID numbers attached to said command received.

22. (Original) The virtual private volume control method as recited in claim 19, wherein whether to process or reject the access requested by said command received is determined, based on preset conditions and said response is returned.

23. (Canceled)

24. (Currently Amended) An OS Management Software wherein when at least one of a plurality of applications issues an access command, said software assigns ID numbers for identifying the application and an ID number for identifying the OS under which the application operates and for using whether the OS and application are authorized to access a logical volume which is included in a storage system, stores the assigned ID numbers into an internal memory of a server, receives a response to which said ID numbers are attached, and returns the response to said application and OS, wherein the access command includes said OS ID number coded in a data frame,

wherein a storage system ~~check's~~ checks whether the one of the plurality of OSs by said command is authorized or not based on a table which includes authentication information of each of the plurality of the OSs, said checking by the

storage system includes receiving said command and deriving at least said OS ID number of the one of the plurality of OSs therefrom,

wherein the storage system receives the authentication information of the plurality of OSs from a computer connected to the storage system by using a control frame and sets the authentication information into the table in advance,

wherein the authentication information includes information that some of the plurality of OSs have authentication to access to the logical volume, and

wherein the authentication information includes priority information which indicate that a command issued from one of the plurality of OSs should be treated prior to the other command issued from the other one of the plurality of OS's.

25. (Previously Presented) A storage system , comprising:

an interface ~~which is~~ capable to connect to a host computer which executes a plurality of OSs;

a controller connected to said interface; and

a plurality of disks ~~which is~~ used for a logical volume,

wherein said interface receives a command from one of said plurality of OSs along with an ID number for identifying ~~[[the]]~~ one of said plurality of OSs, said command including the ID number for identifying the one of said plurality of OSs being coded in a data frame;

wherein said controller checks whether the one of said plurality of OSs has authority to access the logical volume, and notifies ~~[[to]]~~ the host computer to deny the command when the one of the plurality of OSs identified by the ID number doesn't have ~~[[the]]~~ authority~~[[,]]~~;

wherein a storage system checks whether the one of the plurality of OSs by ~~said command~~ is access authorized or not based on a table which includes authentication information ~~[[of]]~~ about each of the plurality of the OSs, said storage system checking includes receiving said command and deriving the ID number of the one of the plurality of OSs therefrom;

wherein the storage system receives the authentication information ~~of the plurality of OSs~~ from a computer connected to the storage system by using a control frame and sets the authentication information into the table in advance ~~[[,]]~~ ;

wherein the authentication information includes information that some of the plurality of OSs have authentication to access to the logical volume, and

wherein the authentication information includes priority information which indicate that a command issued from one of the plurality of OSs should be treated prior to the other command issued from ~~the other command issued from~~ the other one of the plurality of OS's.

26. (Canceled)